## ABSTRACT OF THE DISCLOSURE

A door seal structure for sealing between a door opening portion of a vehicle body and a door frame of a vehicle door. The door seal structure has a protrusion formed in the door frame and protruding inwardly of a glass run holding part for holding a glass run, and a cover member for covering the protrusion and concealing it from a vehicle compartment when the vehicle door is closed. The protrusion has a longitudinally extending depression near a protruding wall of the protrusion, and an inner end edge of the cover member is seated in the longitudinally extending depression. When the vehicle door is closed, the protrusion of the door frame is not seen from the vehicle compartment, and the inner end edge of the cover member does not contact a tubular seal portion of an opening weather strip attached along the door opening portion to prevent wear of the tubular seal portion. Accordingly, the appearance and durability around the door frame are improved.